

What is claimed is:

1. A connection structure for transmission lines comprising:

a first transmission line comprising a first dielectric plate and a first signal wiring pattern disposed on a surface of said first dielectric plate; and

a second transmission line comprising a second dielectric plate and a second signal wiring pattern disposed on a surface of said second dielectric plate, wherein

said first signal wiring pattern is electrically connected to said second signal wiring pattern near an end surface of said first transmission line, so that an electric signal can be transmitted from said first signal wiring pattern to said second signal wiring pattern,

said connection structure further comprising:

a conductor disposed on said end surface of said first transmission line such that it substantially covers said end surface of said first dielectric plate.

2. The connection structure according to claim 1, wherein the distance between said end surface of said first signal wiring pattern and said conductor on said end surface of said first transmission line is shorter than $1/4$ of the wavelength of said signal passing through said signal wiring pattern of said first transmission line.

3. The connection structure according to claim 1, wherein a ground conductor is further disposed on said first dielectric plate, wherein said ground conductor of said first transmission line is electrically connected to said conductor on said end surface of said first transmission line.

4. The connection structure according to claim 1, wherein said first signal wiring pattern is electrically connected to said second signal wiring pattern via a conductor in a through-hole formed in said second dielectric plate.

5. The connection structure according to claim 1, wherein at least one of said first and said second transmission lines is a coplanar line with a ground, a microstrip line, or a strip line.

6. The connection structure according to claim 1, wherein

said first transmission line comprises a first ground conductor disposed on a second surface opposite to a first surface of said first dielectric plate on which said first signal wiring pattern is disposed,

said second transmission line comprises a second ground conductor disposed on a second surface opposite to a first surface of said second dielectric plate on which said second signal wiring pattern is disposed,

said first and second transmission lines are connected such that said first surface of said first transmission line contacts said second surface of said second transmission line, and

said first and second ground conductors are electrically connected.

7. A transmission line comprising:

a dielectric plate;

a signal wiring pattern disposed on a first surface of said dielectric plate;

a ground conductor disposed on a second surface of said dielectric plate;

and

a conductor disposed on an end surface of said transmission line such that it substantially covers an end surface of said dielectric plate.

8. A method for connecting transmission lines comprising the steps of:

providing a conductor on an end surface of a first transmission line comprising a dielectric, a signal wiring pattern disposed on a first surface of said dielectric, and a ground conductor disposed on a second surface of said dielectric, such that said conductor is disposed perpendicular to said signal wiring pattern;

preparing a second transmission line comprising a dielectric, a signal wiring pattern disposed on a first surface of said dielectric, and a ground conductor disposed on a second surface of said dielectric;

superposing an end of said second transmission line on an end of said first transmission line such that said first surface of said first transmission line contacts said second surface of said second transmission line;

electrically connecting said signal wiring pattern of said first transmission line and said signal wiring pattern of said second transmission line; and

electrically connecting said ground conductor of said first transmission line and said ground conductor of said second transmission line.

9. An optical transmission module comprising:

a plurality of devices such as a photoelectric device including a light-emitting element and/or a photodetector element, and electronic devices related to said photoelectric device, wherein

a first transmission line connected to a first device in said devices is connected to a second transmission line connected to a second device in said devices, so that a high-frequency signal can be transmitted between said first and said second devices, wherein

said first transmission line comprises:

a dielectric plate; and

a first signal wiring pattern disposed on a surface of said dielectric plate, and wherein

said second transmission line comprises:

a second signal wiring pattern electrically connected to said first signal wiring pattern near an end of said first transmission line,

said optical transmission module further comprising a conductor disposed on an end surface of said first transmission line such that it substantially covers an end surface of said first dielectric plate.

10. The optical transmission module according to claim 9, wherein said first transmission line carries said first device and further forms a part of a wiring board providing wiring for said first device.